



WASHINGTON STATE DEPARTMENT OF ECOLOGY
EASTERN REGIONAL OFFICE
4601 NORTH MONROE
SPOKANE, WASHINGTON 99205-1295

FINAL STATEMENT OF BASIS
FOR
AIR OPERATING PERMIT NUMBER 02AQER-5105, 2nd Revision
GAS TRANSMISSION NORTHWEST CORPORATION
COMPRESSOR STATION #7
NEAR
STARBUCK, WASHINGTON

TABLE OF CONTENTS

LIST OF ABBREVIATIONS	3
Potential to Emit (PTE) by emission unit	4
1. Introduction	4
2. Facility Identifying Information	4
3. Basis for Title V Applicability	4
4. Attainment Classification	4
5. Title V Facility Timeline	5
6. Facility Description	5
7. Facility Emission Units/Processes	7
8. Insignificant Emission Units and Activities	7
8.1 Categorically Insignificant Emission Units	7
8.2 Insignificant Emission Units based on Size or Production Rate	7
8.3 Requested Insignificant Emission Units Not Designated Insignificant	7
9. Comments and Corresponding Responses	8
10. Applicable/Inapplicable Requirements Determinations/Explanations	8
10.1 Initial or one-time NOC requirements	8
10.2 NOC requirements clarifying miscellaneous issues with regard to the applicable emission unit	11
10.3 Requirements listed as inapplicable and found to be applicable	11
10.4 Requirements listed as inapplicable and found to be inapplicable	13
11. MRRR Sufficiency Explanations	18
12. Streamlining Explanations	20
13. Clarifications and Interpretations	21
14. Appendix A – Facility Maps, Plans, and Diagrams	22

LIST OF ABBREVIATIONS

AOP	Air Operating Permit
BACT	Best Available Control Technology
BTU	British Thermal Units
°C	Degrees Celsius
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
dscf	Dry Standard Cubic Foot
dscf/m	Dry Standard Cubic Foot per minute
Ecology	Washington State Department of Ecology
E.I.T.	Engineer in Training
EPA	United States Environmental Protection Agency
°F	Degrees Fahrenheit
FCAA	Federal Clean Air Act
ft ³	Cubic foot
gr/dscf	Grains per dry standard cubic foot
hr	Hour
lb	Pound
MMBtu	Million British Thermal Units
MRRR	Monitoring, Recordkeeping, and Reporting Requirement
NOC	Notice of Construction
NO _x	Oxides of Nitrogen
NSPS	New Source Performance Standard
O ₂	Oxygen
O&M	Operation & Maintenance
P.E.	Professional Engineer
PM	Particulate Matter
PM-10	Particulate Matter with aerodynamic diameter ≤ 10 micrometers
ppm	Parts per million
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
RCW	Revised Code of Washington
RM	EPA Reference Method from 40 CFR Part 60, Appendix A
scfm	Standard Cubic Feet per Minute
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
T	Temperature
TAP	Toxic Air Pollutant
TPD	Tons Per Day
TPY	Tons Per Year
TSP	Total Suspended Particulate
VOC	Volatile Organic Compound
WAC	Washington Administrative Code
w%	Percentage by Weight
yr	Year

Natural Gas Combustion Turbines – Annual Potential To Emit in Tons Per Year (tpy)¹

Emission Units	PM-10	CO	NO _x	SO ₂	VOC
Combustion Turbine 7B	1.5	350	182	1.9	7.5
Combustion Turbine 7C	3.6	173	236	4.6	5.3

Auxiliary Generator – Annual Potential To Emit in Pounds Per Year (lb/yr)²

Emission Units	PM-10	CO	NO _x	HC	TAP's
Auxiliary Generator	10	336	2380	78	1536

1.0 Introduction

This document sets forth the legal and factual basis for the permit conditions in a FINAL AOP issued by the State of Washington Department of Ecology for a natural gas compressor station located near the town of Starbuck, Washington in Walla Walla County. This document is called a “statement of basis” and is required by Washington State regulations [chapter 173-401 WAC]. A statement of basis does not contain enforceable permit conditions. Enforceable permit conditions are contained in the AOP itself.

2.0 Facility Identifying Information

- 2.1 Company Name ----- Gas Transmission Northwest Corporation
- 2.2 Facility Name ----- Compressor Station #7 – Starbuck
- 2.3 Unified Business Identification Number----- 409-012-561
- 2.4 Facility Address -----Barstow Road, 10 miles south of Ayer Junction, near Starbuck, WA
- 2.5 Responsible Official -----Mr. Ross Parker, Regional Director
 Mailing Address ----- 534 East Trent Avenue, Suite 100, Spokane, Washington 99202
- 2.6 Facility Contact-----Mr. Jeffrey S. Pollock, Env. Eng. Supervisor
- 2.7 Facility Contact Phone Number----- (509) 533-2834

3.0 Basis for Title V Applicability

Gas Transmission Northwest Corporation, Compressor Station #7 – Starbuck, is subject to Title V, Air Operating Permit Regulations, due to the emissions of carbon monoxide (CO) and nitrogen oxides (NO_x) in excess of 100 tons per year. WAC 173-401-200(17)(b) identifies any source that directly emits or has the potential to emit one hundred tpy or more of any air pollutant as a major source. Major sources are required to obtain Title V permits under 173-401-300(1)(a)(i).

4.0 Attainment Classification

The facility is located in an area that is classified as nonattainment for PM-10 and attainment for all other criteria pollutants as of May 2002.

¹ Annual potential to emit values as submitted by the permittee as part of the AOP application.

² Annual potential to emit values as included in Order No. 01AQER-3222.

5.0 Title V Facility Timeline

- 5.1** December 9, 1994 ----- Source Initial Notification of Inclusion in Title V AOP Program
- 5.2** July 1, 1997 ----- Original Title V AOP is issued (Order No. DE 97AQ-E129)
- 5.3** August 27, 2001 -----Title V AOP Renewal Application Complete
- 5.4** July 1, 2002 -----Original Title V AOP expired
- 5.5** December 16, 2002 ----- Final Renewal Permit Issued (Order No. 02AQER-5105)
- 5.6** January 1, 2003 ----- Order No. 02AQER-5105 Effective Date
- 5.7** November 25, 2003 -----Request for Administrative Amendment received by Ecology
- 5.8** December 3, 2003 ----- Final Order No. 02AQER-5105, 1st Revision Issued
- 5.9** January 13, 2005 -----Request for Administrative Amendment received by Ecology
- 5.10** March 14, 2005 -----Final Order No. 02AQER-5105, 2nd Revision Issued
- 5.11** January 1, 2008 -----Order No. 02AQER-5105 Expiration Date

6.0 Company Overview and Facility Description

- 6.1** Gas Transmission Northwest Corporation (GTN) is a natural gas transmission company operating a pipeline from the Canadian border through the states of Idaho, Washington, and Oregon to California. GTN's dual mainline is 612.5 miles in length and includes 638.9 miles of 36-inch and 589.4 miles of 42-inch pipeline. Energy to move the gas is provided by 12 compressor stations located along the pipeline all of which are designed for remote, unattended operation from GTN's Gas Control Center. Typically, there are two gas turbine driven compressor units at a station.

The function of a natural gas compressor station is to produce gas horsepower, i.e., impart energy to the stream of gas in the pipeline in order to induce flow. The horsepower requirement at a station can vary frequently due to factors such as customer demand, weather conditions, availability of compressor units at adjacent stations, downstream pressure requirements, and receiving pressures and volumes. Consequently, normal operation includes operation of either unit individually or both units together.

The major sources of air emissions at Station 7 are the two gas turbine units, Unit 7B and Unit 7C. Through valving, natural gas can be diverted through either one or both compressors. In addition, the station can be bypassed entirely. A process flow diagram and facility plot plan are presented in Appendix A. The other stationary fuel combustion units at Station 7 include boilers used for domestic hot water or space heating and an emergency auxiliary power generator used exclusively for backup power in the event of failure of the outside electrical power supply.

- 6.1.1** *General Facility Process Description* – General process facilities (Section 2.1 of the AOP) include plant-wide emissions, such as fugitive dust from vehicle/equipment travel on-site, vented natural gas from piping and equipment, and emissions related to plant-wide support services such as the boilers for space heating, the emergency generator, metal cutting and welding, and other maintenance, housekeeping and miscellaneous insignificant emissions activities. General facility emission limits, work practice standards and order conditions also apply to Unit 7B and Unit 7C unless otherwise noted.

- 6.1.2** *Compressor Unit 7B* – Section 2.2 of the AOP consists of emissions from Compressor Unit 7B. Unit 7B is a Rolls Royce Avon 1533-76G gas turbine, 14,300

horsepower (ISO), in operation since 1970. Since Unit 7B was installed prior to 1977, it is therefore not subject to the underlying regulatory requirements of New Source Performance Standards (NSPS) or Prevention of Significant Deterioration (PSD).

- 6.1.3** *Compressor Unit 7C* – Section 2.3 of the AOP consists of emissions from Compressor Unit 7C. Unit 7C is a Rolls Royce RB-211 gas turbine, 39,700 horsepower (ISO), in operation since 1993. A PSD review was done prior to the installation and operation of Unit 7C, and BACT was determined to be retrofit of dry low NO_x combustors when commercially available. Unit 7C is currently operating with a production DLE combustor and is subject to design changes to improve durability, emissions characteristics, and reliability. Verifiable emission factors with fuel consumption, operating hours, and periodic source tests are used to monitor NO_x emissions from Unit 7C.
- 6.1.4** *Fuel Specifications* – The pipeline-quality natural gas received from Canada and transported by GTN has been processed and stripped of impurities (e.g., hydrogen sulfide) prior to entering the United States. The table below presents a typical fuel analysis for natural gas transmitted through the GTN pipeline system. This pipeline-quality gas is also used to power the gas turbine-driven compressors. Because essentially all sulfur and other impurities are removed from the pipeline gas in Canada, emissions of sulfur compounds are not generated in significant amounts when the gas is burned as fuel by the pipeline gas turbines. Fuel-bound nitrogen rarely exists in natural gas and then only as an impurity. These molecules are longer chain hydrocarbons typically found in the form of proteins or amines. After the natural gas is removed from the ground, the longer chain hydrocarbon impurities condense due to their higher dew point and are extracted at Canadian gas processing facilities. As part of the terms and conditions of GTN's contract, the purchased gas "...shall be commercially free from sand, dust, gums, crude oil, impurities, and other objectionable substances which may be injurious to pipelines or which may interfere with its transmission through pipelines or its commercial utilization..." and "...shall not have a hydrocarbon dew point in excess of fifteen degrees Fahrenheit at pressures up to eight hundred (800) psig."

Representative Fuel Analysis

<u>Component</u>	<u>Volume Percent</u>	<u>Weight Percent</u>
Carbon dioxide	0.453	1.203
Nitrogen	0.968	1.636
Oxygen	0.017	0.032
Methane	96.713	93.608
Ethane	1.695	3.075
Propane	0.121	0.322
Other Hydrocarbons	0.033	0.124
Total	100.000	100.000
Calculated specific gravity:		0.573
Calculated specific volume (ft ³ /lb):		22.86
Calculated gross heating value (Btu/ft ³):		1,015
Calculated lower heating value (Btu/ft ³):		914
Total Sulfur	<1.0 grains per 100 scf	
Hg		0.032 ng/liter

Sources:

Zalco Laboratories, Inc., Chromatographic Analysis, Laboratory Test Report No. 035430-001, April 12, 1993 (except total sulfur, mercury, and benzene).

Pacific Gas & Electric, Technical and Ecological Services, Laboratory Test Reports, July 1, 1991 (mercury only).

7.0 Facility Emission Units/Processes

- 7.1 Facility Wide (Section 2.1 in AOP)
- 7.2 Compressor Unit 7B (Section 2.2 in AOP)
- 7.3 Compressor Unit 7C (Section 2.3 in AOP)
- 7.4 Auxiliary Generator (Section 2.4 in AOP)

8.0 Insignificant Emission Units and Activities

- 8.1 The permittee proposed numerous insignificant emission units as categorically insignificant based on the requirements outlined in WAC 173-401-532. A list of these units is on file with the Department of Ecology's Eastern Region Office, Air Quality Program in Spokane, Washington.
- 8.2 The following insignificant emission units were proposed by the permittee in the Title V Renewal Application materials submitted to Ecology and have been found by Ecology to meet the requirements outlined in WAC 173-401-533 as insignificant on the basis of size or production rate.
 - 8.2.1 Three natural gas boilers for space and water heating (WAC 173-401-533(2)(e), rated at 1,564,000 BTU/hr, 142,000 BTU/hr, and 36,000 BTU/hr. Combustion sources less than five million BTU/hr exclusively using natural gas, butane, propane, or LPG).
- 8.3 The following emission units and processes were proposed by the permittee in the Title V Renewal Application materials submitted to Ecology as insignificant. Ecology has determined that the units cannot be designated as insignificant emission units under Title V since each of the units has specific requirements that are applicable and include associated monitoring, recordkeeping, and reporting requirements. Insignificant emission units are exempt from monitoring, recordkeeping, and reporting requirements under Title V.

8.3.1 Sources of fugitive dust are subject to the requirements of Section 2.1 of the AOP.

8.3.2 The emergency auxiliary power generator is subject to the requirements of Section 2.4 of the AOP as well as the requirements of Section 2.1 of the AOP.

9.0 Comments and Corresponding Responses

9.1 Comments received during the public comment period and EPA review period are on file at Ecology's Eastern Region Office in Spokane, along with Ecology's response to the comments.

10.0 Applicable and Inapplicable Requirements Determinations/Explanations

10.1 Initial or one-time NOC requirements that have not been included in the AOP as ongoing applicable requirements.

10.1.1 Orders No. DE 99AQ-E108, Approval Condition 3.2 and No. PSD-92-02 Amendment #2, Approval Condition 1, Lines 63-64, Within ninety (90) days of placing the upgraded unit 7C online for service source testing shall be conducted for carbon monoxide (using RM 10) and nitrogen oxides (using RM 20).

10.1.1.1 This testing occurred on August 11, 2001. The test report was received by Ecology on September 3, 2001 and is located in the facility source testing file at Ecology's Eastern Regional Office in Spokane, Washington.

10.1.2 Order No. PSD-92-02, Approval Conditions 3, 4, and 11, Order No. PSD-92-02 First Amendment, Approval Condition 9, Order No. PSD-92-02, Second Amendment, Approval Condition 5, Maintenance and operation manuals for all equipment that has the potential to affect emissions to the atmosphere shall be developed.

10.1.2.1 No record was found in the facility files documenting the completion of the O&M manuals. However, no initial reporting requirement was included in the PSD permit.

10.1.3 Order No. PSD-92-02, Second Amendment, Approval Condition 7, Order No. PSD-92-02 shall become void if construction of the project is not commenced within eighteen (18) months of issuance of the final approval Order.

10.1.3.1 No record was found in the facility files documenting the date of project commencement. However, the PSD permit did not require this notification.

10.1.4 Order No. PSD-92-02, Second Amendment, Approval Condition 9, The permittee shall notify Ecology in writing at least thirty (30) days prior to the startup of unit 7C.

10.1.4.1 This notification was received by Ecology on May 17, 1999 and the correspondence is located in the facility general file at Ecology's Eastern Regional Office in Spokane, Washington.

10.1.5 Order No. PSD-92-02, Approval Condition 1 and Order No. PSD-92-02 First Amendment, Approval Condition 1, NO_x emissions from unit 7C shall be limited to 200 ppm and 924 tons per year.

10.1.5.1 This requirement was included in the original PSD permit to apply until installation of the dry low NO_x combustor. These limits were subsequently superseded by lower limits.

10.1.6 Order No. PSD-92-02, Approval Condition 2, Order No. PSD-92-02 First Amendment, Approval Condition 2, NO_x emissions from unit 7C shall be limited to 205 tons per year and 42 ppm after July 1, 1995.

- 10.1.6.1** This limit was superceded by a new limit in the second amendment to the PSD permit. Unit 7C underwent PSD permitting to amend the permit and allow for an increase in horsepower. The new limit as included in the second amendment to the permit is 236 tons per year.
- 10.1.7** Order No. PSD-92-02, Approval Condition 2, Order No. PSD-92-02 First Amendment, Approval Condition 2, The permittee shall install a dry low NO_x combustor no later than January 1, 1995.
- 10.1.7.1** No record was located in the facility files documenting the date that the dry low NO_x combustor was installed. However, the subsequent performance testing was conducted on May 23, 1995, and the unit was found to be in compliance with emission limitations.
- 10.1.8** Order No. PSD-92-02, Approval Condition 7, Performance testing for NO_x and CO shall be conducted on unit 7C after July 1, 1995.
- 10.1.8.1** Performance testing for NO_x and CO was conducted on unit 7C on both May 23, 1995 and August 11, 1999.
- 10.1.9** Order No. PSD-92-02, Approval Condition 3, Order No. PSD-92-02, Approval Condition 3, CO emissions from unit 7C shall be limited to 90 ppm and 268 tons per year.
- 10.1.9.1** This requirement was included in the original PSD permit to apply until installation of the dry low NO_x combustor. These limits were subsequently superceded by lower limits.
- 10.1.10** Order No. PSD-92-02, Approval Condition 4, Order No. PSD-92-02, Approval Condition 4, CO emissions from unit 7C shall be limited to 150 tons per year after July 1, 1995.
- 10.1.10.1** This limit was superceded by a new limit in the second amendment to the PSD permit. Unit 7C underwent PSD permitting to amend the permit and allow for an increase in horsepower. The new limit as included in the second amendment to the permit is 173 tons per year.
- 10.1.11** Order No. PSD-92-02, Approval Conditions 3, 4, and 6, Order No. PSD-92-02 First Amendment, Approval Condition 5, Initial compliance testing for CO and NO_x shall be performed on unit 7C not later than sixty (60) days after achieving maximum production.
- 10.1.11.1** The initial performance testing occurred on June 4, 1993. A copy of the test report is located in the facility test report file at Ecology's Eastern Regional Office in Spokane, Washington.
- 10.1.12** Order No. PSD-92-02, Approval Conditions 3 and 4, Order No. PSD-92-02, First Amendment, Approval Condition 2, Compliance testing shall be conducted annually for CO and NO_x emissions.
- 10.1.12.1** The annual testing requirement was subsequently replaced by alternate testing frequency requirements in amendments to the PSD permit.
- 10.1.13** Order No. PSD-92-02, Approval Condition 9, Order No. PSD-92-02 First Amendment, Approval Condition 7, By January 1, 1995, the permittee shall install a Continuous Emission Monitoring System for NO_x.

- 10.1.13.1** The monitoring requirements for NO_x were subsequently modified in amendments to the PSD permit.
- 10.1.14** Order No. PSD-92-02, Approval Condition 10, Order No. PSD-92-02 First Amendment, Approval Condition 8, Required monitoring data shall be submitted to Ecology at least monthly.
- 10.1.14.1** An alternate reporting schedule was included in subsequent amendments to the PSD permit.
- 10.1.15** Order No. PSD-92-02, Approval Condition 15, Order No. PSD-92-02 First Amendment, Approval Condition 13, The permittee shall notify Ecology at least thirty (30) days prior to the startup of unit 7C.
- 10.1.15.1** While no correspondence was located that specifically identifies the startup date of unit 7C, the initial source testing report submitted to Ecology on August 2, 1993 implies that the unit was started up prior to this date.
- 10.1.16** Order No. PSD-92-02, Approval Condition 16 Order No. PSD-92-02 First Amendment, Approval Condition 14, The (pre)existing unit 7A must be removed from service within sixty (60) days of the startup of unit 7C.
- 10.1.16.1** No correspondence was located documenting the date that unit 7A was removed from service. However, it is clear from several documents including the AOP renewal application that the unit 7A has been removed permanently from service.
- 10.1.17** 40 CFR 60.7(a)(3), A notification of the actual date of startup of the affected facility shall be submitted postmarked within fifteen (15) days after such date.
- 10.1.17.1** Notification documenting the original date of startup could not be located within the facility files at Ecology's Eastern Regional Office in Spokane.
- 10.1.18** Order No. 01AQER-3222, Issued 09/04/01, Approval Condition 6.1, The permittee shall provide written notification to Ecology of completion of the O&M manual for the auxiliary generator within sixty (60) days of installation of the unit.
- 10.1.18.1** Correspondence received December 12, 2001 provides notification to Ecology that the O&M manual for the unit is complete.
- 10.1.19** Order No. 01AQER-3222, Issued 09/04/01, Approval Condition 5, The permittee shall develop an O&M manual for the auxiliary generator.
- 10.1.19.1** Correspondence received December 12, 2001 provides notification to Ecology that the O&M manual for the unit is complete.
- 10.1.20** Order No. 01AQER-3222, Issued 09/04/01, Approval Condition 6.2, The permittee shall provide written notification to Ecology of installation of the auxiliary generator within fifteen (15) days of such date.
- 10.1.20.1** Correspondence received December 12, 2001 provides notification to Ecology that the generator was installed on November 28, 2001.
- 10.1.21** Order No. 01AQER-3222, Issued 09/04/01, Approval Condition 9.1, Order No. 01AQER-3222 shall become void if installation of the generator is not commenced within eighteen (18) months of receipt of this Order.

10.1.21.1 Correspondence received December 12, 2001 provides notification to Ecology that the generator was installed on November 28, 2001.

10.2 The following NOC requirements clarified miscellaneous issues or included explanatory statements with regard to the applicable emission unit and were not, in actuality, approval conditions that require any action on the part of the permittee. These NOC requirements therefore have not been included in the AOP as ongoing applicable requirements.

10.2.1 Order No. DE 99AQ-E108 – Approval Condition 3.1, Opacity observation.

10.2.1.1 These approval conditions states that opacity observation using RM 9 may be conducted by Ecology during compliance inspections.

10.2.2 Order No. PSD-92-02 – Approval Condition 2, Order No. PSD-92-02, First Amendment, – Approval Condition 2, Order No. PSD-92-02, Second Amendment – Approval Condition 1, NO_x concentration standard.

10.2.2.1 This conditions state that the permittee may submit, for Ecology approval, an alternate NO_x concentration standard outside the range of 70 to 100 percent of base load.

10.2.3 Order No. PSD-92-02 – Approval Condition 2, Order No. PSD-92-02 – Approval Condition 2, NO_x continuous monitoring.

10.2.3.1 This condition states that the permittee may propose alternate monitoring methods in place of the originally required continuous emission monitor.

10.2.4 Order No. 01AQER-3222, Issued 09/04/01, Approval Condition 2.

10.2.4.1 This condition states that Ecology may require initial or periodic performance testing on the auxiliary power generator upon written notification to the permittee.

10.2.5 Order No. 01AQER-3222, Issued 09/04/01, Approval Condition 9.2.

10.2.5.1 This condition did not exist in the Order. Due to a typographical error, the condition number skips from 9.1 to 9.3.

10.2.6 Order No. 01AQER-3222, Issued 09/04/01, Approval Condition 9.6.

10.2.6.1 This condition did not exist in the Order. Due to a typographical error, the condition number skips from 9.5 to 9.7.

10.3 The following requirements were listed as inapplicable by the source, but have been found to be applicable by Ecology.

10.3.1 WAC 173-400-045 Control Technology Fees – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.21 of the AOP.

10.3.2 WAC 173-400-060 Emission Standards for General Process Units – This section of the WAC includes some requirements that potentially require action on the part of the source. See Condition 2.1.2 of the AOP.

10.3.3 WAC 173-400-105 Records, Monitoring and Reporting Requirements – This section of the WAC includes some requirements that

- potentially require action on the part of the source. See Standard Condition 1.6 of the AOP.
- 10.3.4** WAC 173-400-107 Excess Emissions – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.12 of the AOP.
- 10.3.5** WAC 173-400-110 New Source Review – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.20 of the AOP.
- 10.3.6** WAC 173-400-113 Requirements for New Sources in Attainment or Unclassifiable Areas – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.20 of the AOP.
- 10.3.7** WAC 173-400-114 Requirements for Replacement or Substantial Alteration of Emission Control Technology at an Existing Stationary Source – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.21 of the AOP.
- 10.3.8** WAC 173-400-115 Standards of performance for new sources – Since some sections of 40 CFR 60 (Standards of Performance for New Sources, 40 CFR 60.7(a), (b), (f), 60.8, 60.11(d), 60.48c(g), (i)) do apply to the permittee, this Washington State regulation, which incorporates 40 CFR 60 by reference, is applicable to the permittee for those specific sections of 40 CFR 60 which apply.
- 10.3.9** WAC 173-400-116 New Source Review Fees – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.20 of the AOP.
- 10.3.10** WAC 173-400-141 Prevention of Significant Deterioration – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.20 of the AOP.
- 10.3.11** chapter 173-460 WAC Controls for New Sources Of Toxic Air Pollutants – This section of the WAC includes some requirements that potentially require action on the part of the source. See Standard Condition 1.20 of the AOP.
- 10.3.12** 40 CFR 60 Standards of Performance for New Stationary Sources – The NSPS includes some requirements that require action on the part of the source. See Standard Conditions 1.6, 1.13, and 1.27 and Conditions 2.3.3, 2.3.5, 2.3.9, 2.3.11, and 2.3.13 of the AOP.

10.4 The permittee included in their application a long list of requirements for which they requested Ecology to determine inapplicability and grant the permit shield to the Starbuck facility. Except for the requirements listed in section 4 of the AOP, Ecology has not included any of the other requirements in the permit either as applicable or inapplicable. The intent of the permit shield is to address situations where there is a question of applicability. The requirements in section 4 of the AOP are good examples of requirements that reasonably might apply and for which an inapplicability determination is both useful and appropriate to document for the public record. Other requirements listed in the application either don't meet the definition of applicable requirement because they are requirements on Ecology, EPA, or a local regulatory agency rather than on the source or because they are obviously not relevant to the operations of a natural gas compressor station. Including this long list in the permit as inapplicable would serve no purpose and could obfuscate the determination of inapplicability for the relevant standards by making it difficult for the public, EPA, and even the permittee to pick out and carefully evaluate the few standards which could truly be in question. Instead, each requirement has been included below, with a brief explanation of it's inapplicability to the permittee.

- | | | |
|---------------|-----------|--|
| 10.4.1 | 40 CFR 50 | <u>National Primary and Secondary Ambient Air Quality Standards</u> – This regulation does not include requirements which apply directly to the permittee. |
| 10.4.2 | 40 CFR 51 | <u>Requirements for Preparation, Adoption, and Submittal of Implementation Plans</u> – This regulation inherently does not apply to the permittee. |
| 10.4.3 | 40 CFR 53 | <u>Ambient Air Monitoring Reference and Equivalent Methods</u> – This regulation does not include requirements which apply directly to the permittee. |
| 10.4.4 | 40 CFR 54 | <u>Prior Notice of Citizen Suits</u> – The purpose of this part is to prescribe procedures governing the giving of notices as a prerequisite to the commencement of such actions (citizen suits under the CAA). This regulation does not include requirements which apply directly to the permittee. |
| 10.4.5 | 40 CFR 55 | <u>Outer Continental Shelf Air Regulations</u> – The permittee is not an OCS source, and is therefore not subject to these regulations. |
| 10.4.6 | 40 CFR 56 | <u>Regional Consistency</u> – These regulations govern methods employed to achieve fairness and uniformity on the part of EPA and do not require any action on the part of the source. |
| 10.4.7 | 40 CFR 57 | <u>Primary Nonferrous Smelter Orders</u> – The permittee does not operate this type of facility. |
| 10.4.8 | 40 CFR 58 | <u>Ambient Air Quality Surveillance</u> – This regulation does not include requirements which apply directly to the permittee. |
| 10.4.9 | 40 CFR 61 | <u>Emission Standards for Sources Emitting Hazardous Air Pollutants</u> – The source does not emit significant amounts of any hazardous air pollutant. |

10.4.10	40 CFR 62	<u>Approval and Promulgation of State Plans for Designated Facilities and Pollutants</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.11	40 CFR 63	<u>Emission Standards for Sources Emitting Hazardous Air Pollutants</u> – The source does not emit significant amounts of any hazardous air pollutant.
10.4.12	40 CFR 65	<u>Consolidated Federal Air Rule</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.13	40 CFR 66	<u>Assessment and Collection of Noncompliance Penalties by EPA</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.14	40 CFR 67	<u>EPA Approval of State Noncompliance Penalty Program</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.15	40 CFR 68	<u>Chemical Accident Prevention Provisions</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.16	40 CFR 69	<u>Special Exemptions from Requirements of the CAA</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.17	40 CFR 71	<u>Federal Operating Permits Program</u> – This rule applies to the state implementation of the operating permit programs. This regulation does not include requirements which apply directly to the permittee.
10.4.18	40 CFR 72	<u>Permits Regulation</u> – This facility is not subject to the acid rain program.
10.4.19	40 CFR 73	<u>Sulfur Dioxide Allowance System</u> – This facility is not subject to the acid rain program.
10.4.20	40 CFR 75	<u>Continuous Emission Monitoring</u> – This facility is not subject to the acid rain program.
10.4.21	40 CFR 76	<u>Acid Rain Nitrogen Oxides Emission Reduction Program</u> – This facility is not subject to the acid rain program.
10.4.22	40 CFR 77	<u>Excess Emissions</u> – This facility is not subject to the acid rain program.
10.4.23	40 CFR 78	<u>Appeal Procedures for Acid Rain Program</u> – This facility is not subject to the acid rain program.
10.4.24	40 CFR 79	<u>Registration of Fuels and Fuel Additives</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.25	40 CFR 80	<u>Regulation of Fuels and Fuel Additives</u> – This regulation does not include requirements which apply directly to the permittee.

10.4.26	40 CFR 81	<u>Designation of Areas for Air Quality Planning Purposes</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.27	40 CFR 82	<u>Protection of Stratospheric Ozone</u> – The majority of the requirements included in this part do not apply to the permittee. However, subparts E (Labeling of Products using Ozone Depleting Substances) and F (Recycling and Emissions Reduction) apply generally nationwide.
10.4.28	40 CFR 85	<u>Control of Air Pollution From Mobile Sources</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.29	40 CFR 86	<u>Control of Emissions From New and In-Use Highway Vehicles and Engines</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.30	40 CFR 87	<u>Control of Air Pollution From Aircraft and Aircraft Engines</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.31	40 CFR 88	<u>Clean Fuel Vehicles</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.32	40 CFR 89	<u>Control of Emissions from New and In-use Non-road Engines</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.33	40 CFR 93	<u>Determining Conformity of Federal Actions to State or Federal Implementation Plans</u> – This regulation does not include requirements which apply directly to the permittee.
10.4.34	chapter 463-39 WAC	<u>Energy Facility Site Evaluation Council (EFSEC): General and Operating Permit Regulation for Air Pollution Sources</u> – The regulations included under this section of the WAC apply only to those facilities under the jurisdiction of the EFSEC. The permittee is not currently under this jurisdiction.
10.4.35	chapter 246-247 WAC	<u>DOH: Radioactive Air Emissions</u> - The permittee is not currently required to take any action under this regulation.
10.4.36	chapter 173-495 WAC	<u>Weather Control</u> – The permittee does not operate any weather controlling equipment.
10.4.37	chapter 173-492 WAC	<u>Motor fuel specifications for oxygenated gasoline</u> – This regulation inherently does not apply to the permittee.
10.4.38	chapter 173-491 WAC	<u>Emissions Standards and Controls for sources emitting gasoline vapors</u> – The permittee does not operate any gasoline marketing operations.
10.4.39	chapter 173-490 WAC	<u>Emission Standards and Controls for Sources Emitting VOC's</u> - The permittee is not located in an ozone

- nonattainment area or included in the WAC 173-490-030 listing.
- 10.4.40** chapter 173-481 WAC Ambient Air Quality and Environmental Standards for Fluorides - The permittee is not currently required to take any action under this regulation.
- 10.4.41** chapter 173-480 WAC Ambient Air Quality Standards and Emission Limits for Radionuclides - The permittee is not currently required to take any action under this regulation.
- 10.4.42** chapter 173-450 WAC Financial Aid to authorities – This regulation inherently does not apply to this source.
- 10.4.43** chapter 173-435 WAC Emergency Episode Plans – The permittee is not currently required to take any action under this regulation.
- 10.4.44** chapter 173-434 WAC Solid Waste Incineration – The permittee is not in this source category.
- 10.4.45** chapter 173-430 WAC Agricultural Burning – The permittee does not perform agricultural activities.
- 10.4.46** chapter 173-422 WAC Motor Vehicle Emission Inspection – This regulation inherently does not apply to this source.
- 10.4.47** chapter 173-421 WAC Motor Vehicle Emission Control Systems – This regulation inherently does not apply to this source.
- 10.4.48** chapter 173-420 WAC Conformity of Transportation Plans with SIP – This regulation inherently does not apply to this source.
- 10.4.49** chapter 173-415 WAC Primary Aluminum plants – The permittee is not in this source category.
- 10.4.50** chapter 173-410 WAC Sulfite Pulping mills – The permittee is not in this source category.
- 10.4.51** chapter 173-405 WAC Kraft Pulping mills – The permittee is not in this source category.
- 10.4.52** chapter 173-401 WAC Operating Permit Regulation – The regulations included in Chapter 173-401 WAC are the guidelines apply to Washington State’s Operating Permit Program and do not include specific requirements that apply to the source. This can be a source of confusion because Operating Permits include requirements that are authorized by Chapter 173-401 WAC. However, these requirements technically do not apply to the source until they are included in an Operating Permit.
- 10.4.53** WAC 173-400-010 Policy and Purpose – This section of the WAC does not contain any requirements that require the source to take action of any kind.
- 10.4.54** WAC 173-400-020 Applicability – This section of the WAC does not contain any requirements that require the source to take action of any kind.

- 10.4.55** WAC 173-400-030 Definitions – This section of the WAC does not contain any requirements that require the source to take action of any kind.
- 10.4.56** WAC 173-400-040(3)(b) RACT for emissions units identified as significant contributors to non attainment status of the region – Source is not currently located in a nonattainment area.
- 10.4.57** WAC 173-400-040(8)(b) RACT for emissions units identified as significant contributors to the PM-10 non attainment status of the region – Source is not currently located in a nonattainment area.
- 10.4.58** WAC 173-400-050(2) Incineration units standards – Facility does not operate an incinerator.
- 10.4.59** WAC 173-400-070 Emission standards for certain source categories – Facility does not operate sources in these specific categories.
- 10.4.60** WAC 173-400-075 Emission Standards for Sources Emitting Hazardous Air Pollutants – The source does not emit significant amounts of any hazardous air pollutant.
- 10.4.61** WAC 173-400-081 Startup and Shutdown – This section of the WAC does not contain any requirements that require the source to take action of any kind.
- 10.4.62** WAC 173-400-091 Voluntary Limits on Emissions – This section of the WAC does not contain any requirements that require the source to take action of any kind.
- 10.4.63** WAC 173-400-100 Source Registration Program – AOP sources are exempt from registration (WAC 173-400-101(7)).
- 10.4.64** WAC 173-400-101 Registration Issuance – AOP sources are exempt from registration per WAC 173-400-101(7), this exemption would fail should the source’s AOP status change.
- 10.4.65** WAC 173-400-112 Requirements for new sources in nonattainment areas – Source is not currently located in a nonattainment area.
- 10.4.66** WAC 173-400-120 Bubble rules – Source is not currently utilizing the option provided by these rules. This requirement will become applicable upon the permittee’s request to utilize the provisions provided by bubble rules.
- 10.4.67** WAC 173-400-131 Issuance of emission reduction credits – The permittee is not currently utilizing the option provided by these rules. This requirement will become applicable upon the permittee’s request for emission reduction credit.
- 10.4.68** WAC 173-400-136 Use of emission reduction credits – The permittee is not currently utilizing the option provided by these rules. This requirement will become applicable upon the permittee’s request for emission reduction credit.

10.4.69	WAC 173-400-151	<u>BART for sources Impacting Class I Areas</u> – The facility is not in or near any class I area.
10.4.70	WAC 173-400-161	<u>Compliance Schedules</u> – This section of the WAC includes requirements that apply to the process governing the issuance of compliance schedules.
10.4.71	WAC 173-400-171	<u>Public Involvement</u> – This section of the WAC outlines the public involvement processes that govern the actions of the permitting authority.
10.4.72	WAC 173-400-180	<u>Variance</u> – The permittee is not currently utilizing the option provided by these rules. This requirement will become applicable upon request for a variance by the permittee.
10.4.73	WAC 173-400-190	<u>Requirements for nonattainment areas</u> – Source is not located in a nonattainment area.
10.4.74	WAC 173-400-210	<u>Emission Requirements of Prior Jurisdictions</u> – No emission requirements of prior jurisdictions apply to the permittee.
10.4.75	WAC 173-400-220	<u>Ecology Board Member Salary Derivation Requirements</u> – This regulation inherently does not apply to this source.
10.4.76	WAC 173-400-230	<u>Regulatory Actions</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.
10.4.77	WAC 173-400-140	<u>Criminal Penalties</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.
10.4.78	WAC 173-400-250	<u>Appeals</u> – This section of the WAC does not contain any requirements that require the source to take action of any kind.
10.4.79	WAC 173-400-260	<u>Ecology Board Member Conflict of Interest Requirements</u> – This regulation inherently does not apply to this source.

11.0 Monitoring, Recordkeeping, and Reporting Requirement (MRRR) Sufficiency Explanations – The following section provides brief discussions regarding the reasoning behind the MRRR’s included as part of the AOP. The criterion is that each MRRR must be sufficient to assure compliance with the associated condition, emission standard or work practice.

11.1 MRRR 1M – No specific monitoring can reasonably be required for these requirements. The nature of the requirements makes it necessary to rely on the good faith of the permittee to conscientiously monitor site operations and to promptly report any deviations.

11.2 MRRR 2M – This monitoring is used for conditions that require the source to maintain a certain status quo (e.g., O&M manual accessible to employees in operation of the equipment; maintaining replacement parts for routine repairs to monitoring equipment). To assure compliance with these provisions, the permittee is simply required to check that there has been no change in the status quo. Since such a change is unlikely, an annual inspection was deemed adequate.

- 11.3** **MRRR 3M** – This MRRR was designed to provide sufficient response to complaints regarding facility emissions affecting the landowners neighboring or in the affected vicinity of the facility. Timeframes were chosen to provide the permittee with adequate time to respond appropriately as well as ensuring that complaints not go unnoticed.
- 11.4** **MRRR 4M** – The monitoring has been designed to require periodic reviews of Operation and Maintenance manuals and other documents in order to evaluate whether current operational practices are being conducted in a manner consistent with the information upon which permitting has been based. The recordkeeping and reporting required ensure that practices which are not consistent with the submitted information will be addressed in a timely manner.
- 11.5** **MRRR 5M** – The monitoring has been designed to require periodic walk-around surveys as the most simple and direct method to determine the presence of excess emissions. The surveys include the requirement to perform RM 9 if visible emissions are observed and are not eliminated within a reasonable time frame. These surveys, in conjunction with a good faith effort on the part of the permittee to operate in accordance with the conditions of the AOP, are considered sufficient monitoring.
- 11.6** **MRRR 6M** – The monitoring as specified has been designed based on the condition that all associated equipment is maintained in proper working condition. Using emission factors in conjunction with operational parameters is a feasible method of estimating emissions from an emission unit for which performance testing may not be feasible. The monitoring was designed with the goal of providing the permittee with sufficient opportunity to respond to upsets appropriately while at the same time avoiding significant environmental degradation.
- 11.7** **MRRR 7M** – This monitoring has been specified to include the estimation of emissions based on the use of emission factors, as described in 11.6 above. In addition, periodic source testing has been added to the monitoring due to the size of the emission unit.
- 11.8** **MRRR 8M** – This monitoring has been specified to rely on periodic source testing in order to gain a reasonable assurance of compliance with the various pollutant limits that apply to the unit 7C. Source testing is the most reliable method for determining emissions, and due to the size of the emission unit and the requirements that apply, testing is deemed reasonable.
- 11.9** **MRRR 9M** – This MRRR establishes the minimum monitoring, recordkeeping and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the turbine. The turbine is subject to the requirements of 40 CFR 60 Subpart GG, which requires fuel monitoring for sulfur and nitrogen. Subpart GG contains a provision allowing the approval of a custom fuel monitoring schedule by EPA. The permittee has requested and obtained approval for such a schedule. The requirements of the custom fuel monitoring schedule have been included in this MRRR.
- 11.10** **MRRR 10M** – The required response time and information required to be submitted as part of the reporting are in accordance with the permit condition and include the necessary information for Ecology to evaluate the deviation.
- 11.11** **MRRR 11M** – The monitoring is included specifically as required by 40 CFR 60.
- 11.12** **MRRR 12M** – This MRRR establishes the minimum recordkeeping information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the O&M manual for compressor unit 7C.
- 11.13** **MRRR 13M** – This MRRR establishes the minimum monitoring, recordkeeping and reporting information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the auxiliary generator.

- 11.14 MRRR 14M** – This MRRR establishes the minimum recordkeeping information necessary for reasonable assurance of compliance with the appropriate requirements applicable to the auxiliary generator O&M manual.

12.0 Streamlining Explanations

- 12.1** Order No. PSD-92-02, Issued 06/16/92, Approval Condition 2 – Emissions of NO_x from unit 7C – This requirement limits NO_x emissions to 42 ppm. This applicable requirement has not been included in the AOP due to the fact that the second amendment of the PSD permit contains an identical emission limitation for NO_x (condition 1). Since the condition included in the original Order is identical to the condition included in the second amendment to the Order, it is appropriate to apply streamlining to this requirement.
- 12.2** Order No. PSD-92-02, Issued 06/16/92, Approval Condition 4, Order No. PSD-92-02 First Amendment, Issued 05/08/97, Approval Condition 4 – Emissions of CO from unit 7C – This requirement limits CO emissions to 50 ppm. This applicable requirement has not been included in the AOP due to the fact that the second amendment of the PSD permit contains an identical emission limitation for CO (condition 2). Since the condition included in the original Order is identical to the condition included in the second amendment to the Order, it is appropriate to apply streamlining to this requirement.
- 12.3** Order No. PSD-92-02, Issued 06/16/92, Approval Condition 2 and Order No. PSD-92-02 First Amendment, Approval Condition 2 – Idling hours of unit 7C – This requirement limits idling hours to 30 hours per month. This applicable requirement has not been included in the AOP due to the fact that the second amendment of the PSD permit contains an identical requirement (condition 1). Since the condition included in the original Order is identical to the condition included in the second amendment to the Order, it is appropriate to apply streamlining to this requirement.
- 12.4** Order No. PSD-92-02, Issued 06/16/92, Approval Conditions 11 and 12, Order No. PSD-92-02 First Amendment, Issued 05/08/97, Approval Conditions 9 and 12 – Preparation and submittal of an O&M manual – This condition requires that the permittee prepare and submit for approval an O&M manual for all equipment that has the potential to affect emissions to the atmosphere. These applicable requirements have not been included in the AOP due to the fact that the second amendment of the PSD permit contains identical requirements (conditions 5 and 6). Since the conditions included in the original Order are identical to the conditions included in the second amendment to the Order, it is appropriate to apply streamlining to these requirements.
- 12.5** Order No. PSD-92-02, Issued 06/16/92, Approval Condition 13, Order No. PSD-92-02 First Amendment, Issued 05/08/97, Approval Condition 11 – Delayed construction and discontinued operation – This condition stipulates that the PSD Order shall become void if construction of the project does not commence within 18 months of final approval or if operation of the facility is discontinued for 18 months. This applicable requirement has not been included in the AOP due to the fact that the second amendment of the PSD permit contains an identical requirement (conditions 7). Since the condition included in the original Order is identical to the condition included in the second amendment to the Order, it is appropriate to apply streamlining to this requirement.

13.0 Clarifications and Interpretations

- 13.1** Section 1 - Standard Conditions – For permit conditions required by Washington State regulations that have been included in the SIP, two dates are given. The first date is the date for the regulation that was adopted into the SIP. The second date is for the most up-to-date version of the regulation. State-only enforceable permit conditions are identified with the symbol (S).

- 13.2** WAC 173-401-620(1) – Acid Rain Provisions. The permittee is not an affected source as specified in the referenced section of the WAC. Due to this, no permit conditions relating to the acid rain provisions of the FCAA have been included in the AOP.
- 13.3** WAC 173-401-510(2)(h)(i) – Compliance Plan. At the time of permit issuance, no ongoing applicable requirements have been identified with which the permittee is not currently in compliance. However, this does not preclude Ecology from taking future action on past non-compliance.
- 13.4** Chapter 173-425 WAC, Open Burning – The requirements restricting open burning in the State of Washington apply to the source, and therefore Chapter 173-425 has been included as an applicable requirement under Section 2.1 Facility Wide Requirements.
- 13.5** Condition 2.1.1 of AOP, Visible Emissions – WAC 173-400-040(1), (1)(a), and (1)(b) restrict visible emissions from all sources of air emissions throughout the source to 20% opacity for no longer than three (3) minutes in any one hour. While it is clear from the time periods contained within the regulation that Ecology Method 9A (“Source Test Manual – Procedures for Compliance Testing”, State of Washington, Department of Ecology, 07/12/90) was the test method intended to be used to verify compliance, this permit has specified EPA Reference Method 9 as the test method utilized as part of MRRR 5M. Ecology has determined that reasonable assurance of compliance with the regulation may be obtained by conducting RM 9 upon observance of visible emissions, as specified within 5M.
- 13.6** Compressor Turbine 7B – Unit 7B was installed in 1970. Due to this, the unit is not subject to the requirements included under the NSPS or PSD permitting programs. The unit is only subject to general statewide standards and the associated monitoring, recordkeeping and reporting requirements.
- 13.7** Order No. DE96AQ-E131, First Amendment – While not explicitly stated within the 1999 Order, Order No. DE96AQ-E131, First Amendment was replaced by Order No. DE99AQ-E108. The 1999 Order contained all of the conditions contained within the 1996 Order while allowing for the increase in horsepower and adding additional conditions. The original NOC application for construction of unit 7C was submitted in 1991. The unit was subsequently permitted, and for some unknown reason, the 1999 Order was issued as a new Ecology Order rather than the second amendment to the 1996 Order. Regardless, the 1996 Order no longer contains any requirements that apply to unit 7C, as all the requirements were included in Order No. DE99AQ-E108.
- 13.8** “ISO” Conditions – As clarified in Order No. PSD-92-02, Approval Condition 1, ISO conditions denotes standard day conditions of temperature equal to 288 degrees Kelvin, 60 percent relative humidity, and pressure of 101.3 kilo Pascals.
- 13.9** Standard Condition 1.13.4, Emission Inventory – The requirements contained in this standard condition shall be met by the monitoring submittal requirements contained within the AOP provided sufficient emission information is provided.
- 13.10** MRRR 6M and 7M of AOP – The correction for oxygen content as prescribed by 6M and 7M should be performed according to the method outlined in 40 CFR 60 Appendix A, Reference Method 19.
- 14.0** **Appendix A – PG&E GTN Compressor Station #7 – Starbuck, Property Legal Description, and Process Flow Diagram**
- 14.1** Process Flow Diagram
- 14.2** Legal Description of Property and Property Plot Plans